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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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OYEBISI, OJO O

ART UNIT	PAPER NUMBER
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3628

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/848,428	LEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	OJO O. OYEBISI	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

In the Amendment filed on 12/21/05, the following have occurred: Claims 1, 3, 11, 13, 15, 17 and 20 have been amended. Claims 1-20 are pending in the application, and claims 1-20 stand rejected in this office action.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 9-13, 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Carlton-Foss (Foss hereinafter, U.S PAT: 6,647,373).  
  
Re claim 1. Foss discloses a computer system for ranking one or more objects having two or more attributes (i.e., dimensions, col.13, lines 40-45) comprising: one or more central processing units (CPUs) and one or more memories and one or more network interface to one or more networks associated with the CPUs; one or more visual interfaces which receives one or more objects having two or more attributes, and visually presents the one or more objects (see fig.1 and fig.2); one or more weight generator modules which receives the one or more objects having two or

more attributes and one or more objects ranked by one or more users, and computes one or more weights of the two or more attributes; and one or more multi-criteria decision analysis module which receives the one or more objects having two or more attributes and one or more weights of the two or more attributes from the one or more weight generator modules and computes one or more scores of the one or more objects (see fig.5 and fig.11)(see abstract, summary of the invention).

Re claim 2. Foss further discloses the system as stated supra wherein at least one of the one or more objects having two or more attributes include a sell bid used in online trading based on one or more Request-For-Quote (RFQ) processes in marketplace (see col.1, lines 19-26, also see fig.4a, 1<sup>st</sup> paragraph).

Re claim 3. Foss further discloses the system as stated supra wherein the two or more attributes include a pair of name and value, and is grouped into categories including product specification, service specification and supplier qualification (see col.3, lines 15-37).

Re claim 4. Foss further discloses the system as stated supra wherein the product specification includes attributes such as price, material quality and properties (see col.8, lines 6-9), color and size (i.e., a picture of the product) (see col.6, lines 15-25, also col.12, lines 15-22).

Re claim 5. Foss further discloses the system as stated supra wherein the service specification includes delivery time and cost, and warranty (see col.12, lines 1-25, also see fig.14).

Re claim 6. Foss further discloses the system as stated supra the supplier qualification includes trading history, experience and reputation (i.e., organizational information, see fig.7, lines 35-67).

Re claim 9. Foss further discloses the system as stated supra wherein the visual interface allows one or more user to manually specify the ranks of the one or more objects having two or more attributes displayed in the visual interface (see col.6, lines 10-25, col.12, lines 20-60).

Re claim 10. Foss further discloses the system as stated supra wherein the visual interface presents a view of the one or more objects having two or more attributes along with the one or more scores of individual objects of the one or more objects (see fig.1, fig.11, also see fig. 14).

Re claim 11. Foss further discloses the system as stated supra wherein the visual interface presents a view of one or more objects having two or more attributes along with one or more scores of individual objects of the one or more objects and one or more weights of one or more attributes of objects (see col.6, lines 10-25, fig.1, fig.11, also see fig. 14).

Re claim 12. Foss further discloses the system as stated supra wherein the score of the object having two or more attributes is a linear combination of one or more weighted attribute values of the object (see fig.11, also see col.12, lines 60-65).

Re claim 13. Foss further discloses the system as stated supra wherein the weight generator process computes one or more weights of two or more attributes of the object by using a score inequality specified by two

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or more ranks (i.e., MaxWeightedEval, WeightedEval, CostPoints) of one or more objects given by one or more users (col.12, lines 25-65 through col.13, lines1-15).

Re claim 15. Foss discloses a method of ranking one or more objects having two or more attributes comprising the steps of: receiving one or more objects having two or more attributes (see abstract); specifying a number and members of selected objects (i.e., quantity and product, see fig.12a); displaying one or more views of the selected objects in one or more visual interfaces (see col.6, lines 15-25); providing one or more ranks of the selected objects displayed in the one or more visual interfaces (see fig.11); computing one or more weights of the two or more attributes of the objects by using one or more ranks specified for the selected objects (col.12, lines 25-65 through col.13, lines1-15); computing one or more scores of one or more objects having two or more attributes by using the computed weights of the two or more attributes of objects (see fig.11); displaying one or more views of the one or more objects having two or more attributes with one or more scores for individual objects in the one or more visual interfaces; and displaying one or more weights of the two or more attributes of the objects in the one or more visual interfaces (see col.6, lines 10-25, fig.1, fig.11, also see fig. 14).

Re claim 16. Foss further discloses a method as stated supra, further comprising the step of examining (i.e., review) the one or more scores (i.e., ratings) of one or more objects having two or more attributes for

decision-making in selecting one or more objects having one or more high scores (see col.6, lines 55-67).

Re claim 17. Foss further discloses a method as stated supra, further comprising the step of examining the one or more weights of the two or more attributes of objects for inspecting the accuracy of one or more weights of the two or more attributes computed by one or more weight generator processes (see col.8, lines 14-19, also see col.12, lines 53-57).

Re claim 18. Foss further discloses a method as stated supra, further comprising the step of changing a size and members of the selected objects (i.e., modify their request and bids, col.5, lines 25-30) having two or more attributes, and also changing one or more ranks of the selected objects (see col.6, lines 30-50; col.8, lines 19-22; col.10, lines 10-12).

Re claim 19. Since claim 19 further comprising repeating the steps of claim 15, and since Foss teaches all the steps recited in claim 15, thus claim 19 is rejected using the same art and rationale in the rejection of claim 15.

Re claim 20. Claim 20 recites similar limitations to claim 15, and thus rejected using the same art and rationale in the rejection of claim 15.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which

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said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foss in view of Christopher V. Jones (Jones hereinafter, Visualization and Optimization, <http://catt.okstate.edu/jones98/parallel.html>, pgs 1-8).

Re claim 7. Foss further discloses the system as stated supra wherein the visual interface presents a view of the one or more objects having two or more attributes (see fig.1, also see col.6, lines 10-25). Foss does not explicitly disclose one or more parallel coordinates. However, Jones discloses one or more parallel coordinates (i.e., parallel coordinates, an improvement over Cartesian coordinates is well known in coordinate geometry as a way to represent multi-dimensional information, see pgs 1-8). Thus, it would have been obvious to one of ordinary skill in the art to represent one or more objects having two or more attributes in parallel coordinates as taught by Jones using the visual interface of Foss in order to present a clearer analytical view of the multi dimensional information (i.e., object and its attributes).

Re claim 8. Foss does not explicitly disclose the parallel coordinates presents an attribute of an object by a parallel axis labeled by attribute name, and the object having two or more attributes by a collection of line segments connecting attribute value points located on the parallel axes representing attributes. However, Jones discloses one or more parallel coordinates (i.e., parallel coordinates, an improvement over Cartesian coordinates is well known in coordinate geometry as a way to represent



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multi-dimensional information, see pgs 1-8). Thus, it would have been obvious to one of ordinary skill in the art to represent one or more objects having two or more attributes in parallel coordinates as taught by Jones using the visual interface of Foss in order to present a clearer analytical view of the multi dimensional information (i.e., object and its attributes).

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foss.

Re claim 14. Foss does not explicitly disclose the system wherein: the score inequality is provided

by: 
$$\text{SIGMA}_{j=1}^n w_j f(a_{ij}) > \text{SIGMA}_{j=1}^n w_j f(a_{kj}) > \text{SIGMA}_{j=1}^n w_j f(a_{lj})$$
; and a scoring function for calculating the scores is a linear combination of the weighted values of the attributes provided by: 
$$S_i = \text{SIGMA}_{j=1}^n w_j f(a_{ij})$$
, for all  $i$ , wherein the number of scores can be any number larger than 1 and wherein  $S_i$  denotes a score of object  $i$ ,  $w_j$  a weight of the attributed  $j$ ,  $a_{ij}$  a value of attribute  $j$  of object  $i$ , and  $f(\ )$  a transformation of attribute value  $a_{ij}$ . However, Foss discloses that other substantially equivalent formulas using the same or different computer statistics and variables can be used by those skilled in the art to evaluate scores (i.e., rating/points). Further, in Mathematics, different methods/steps can be used to solve a single equation. As long as the steps converge and yield the same solution for the said single equation, that is what matters, the variables that denote the events in the said single equation do not really matter.

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Thus, it would have obvious to one of ordinary skill in the art to use the same or different computer statistics and variables to facilitate an efficient way to evaluate the one or more weight of one or more attributes of the object.

### ***Response to Arguments***

6. Applicant's arguments filed on 12/21/05 have been fully considered but they are not persuasive.
- The applicants argue in substance that that while the system of CARLTON-FOSS is capable of computing scores for objects such as bids (see bottom of Fig. 12b) and receives as inputs attributes having weights (see middle of Fig. 12b), the disclosed system apparently receives the weights from a purchaser (see col. 11, line 3), and does not appear to compute one or more weights of the two or more attributes as recited in each of claims 1, 15 and 20. In response to the applicant's argument, the examiner asserts that even though the request record includes a numerical weight that the owner (i.e., purchaser) of that request gives to each of the relevant evaluation categories (see col.12, lines 21-25), the weight which the system later receives from the purchaser. However, the bid ranking manager computes its own weighted sum using the weighted sum formula:  $\text{WeightedEval} = \text{Sum}([\text{price\_eval}] * [\text{dimension weight}])$ ,  $\text{MaxWeightedEval} = \text{Sum}(10 * [\text{dimension weight}])$  (see col.12, lines 30-40),

where **dimension weight** is the weighting the requestor has assigned.

Thus, in addition to the dimension weight that requestor (i.e., purchaser) has assigned, the bid ranking manager of Carlton-Foss computes one or more weights of the two or more attributes on its own as it shown in the formula stated supra.

- The applicants further argue that while it is apparent from Fig. 15 of CARLTON-FOSS that the system is capable of displaying a view having bids that are ranked (see middle of Fig. 15) and another view with the details of a particular bid (see bottom of Fig. 15), the disclosed system does not appear to be capable of displaying one or more views of the one or more objects having two or more attributes with one or more scores for individual objects in the one or more visual interfaces and displaying one or more weights of the two or more attributes. To the contrary, the bottom screen shown in Fig. 15 does not display any weights whatsoever. The examiner asserts that fig. 14 as opposed to fig. 15 displays one or more views of the one or more objects having two or more attributes with one or more scores for individual objects in the one or more visual interfaces and displaying one or more weights of the two or more attributes (Please see the rejection of claim 15 supra).
- Applicants further argue that "official notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known."

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Accordingly, Applicants respectfully request that the Examiner produce documentary evidence to support the Examiner's assertions to the extent that the Examiner is relying on official notice. In response to the applicant's request, the examiner has enclosed documentary evidence to support the Examiner's assertions to the extent that the Examiner is relying on official notice (please see the rejection of Claims 7-8 supra).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571) 272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH can be reached on (571)272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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